

What is claimed is:

1. A system for terrestrial transmission of RF signals comprising:
an antenna, where said antenna includes an active device and a passive device,
where the passive device receives RF signals; and
5 a decoder connected to the antenna, where decoder receives and analyzes IF signals
from said antenna and upon receipt the IF signals sends commands to the active
device in order to maintain an acceptable IF signal.
2. The system according to claim 1, where said active device down converts the RF
signals to the IF signals.
- 10 3. The system according to claim 2, where said active device includes at least one
amplifier.
4. The system according to claim 3, where the at least one amplifier applies a gain
onto the RF signals based upon commands from the decoder.
5. The system according to claim 3, where the at least one amplifier applies a gain
15 onto the IF signals based upon commands from the decoder.
6. The system according to claim 3, where the at least one amplifier applies a gain
onto the RF signals and IF signals based upon commands from the decoder.
7. The system according to claim 1, where the passive device receives RF signals
from a satellite and a broadcast center.
- 20 8. The system according to claim 3, wherein the at least one amplifier includes at
least one of a low noise amplifier and a low noise block converter.

9. The system according to claim 3, wherein the at least one amplifier may apply a gain of about 20 dB to about 91 dB.
10. The system according to claim 9, wherein the decoder selectively adjusts the gain from about 20 dB to about 91dB based upon the IF signals.
- 5 11. The system according to claim 1, where the commands sent by the decoder are using a DiSEqC process.
12. The system according to claim 1, where the active device includes at least one RF signal amplifier and at least one IF signal amplifier.
13. The system according to claim 12, where the decoder sends commands that
10 selectively activate the at least one RF signal amplifier and the at least one IF signal amplifier.
14. The system according to claim 13, where said commands and IF signals are transmitted upon a single wire connecting the decoder and antenna.
15. A method for a terrestrial transmission of RF signals comprising the steps of:
15 receiving RF signals via an antenna;
downconverting RF signals to IF signals;
transmitting the IF signals via a wire to a decoder;
transmitting commands via the wire to the antenna from the decoder upon receipt of the IF signals;
20 adjusting the RF signals and the IF signals based upon the commands; and
maintaining an acceptable IF signal for receipt by the decoder.

16. The method according to claim 15, further comprising the step of:

amplifying the RF signals based upon the commands.

17. The method according to claim 16, further comprising the step of:

using at least one of a low noise amplifier and a low noise block converter to

5 execute the step of amplifying.

18. The method according to claim 16, wherein the step of amplifying applies a gain of about 20 dB to about 91 dB.

19. The method according to claim 15, further comprising the step of:

amplifying the IF signals based upon the commands.

10 20. The method according to claim 19, further comprising the step of:

using at least one of a low noise amplifier and a low noise block converter to execute the step of amplifying.

21. The method according to claim 19, wherein the step of amplifying applies a gain of about 20 dB to about 91 dB.

15 22. The method according to claim 15, further comprising the step of:

amplifying the RF signals and the IF signals based upon the commands.

23. The method according to claim 22, further comprising the step of:

using at least one of a low noise amplifier and a low noise block converter to execute the step of amplifying.

20 24. The method according to claim 22, wherein the step of amplifying applies a gain of about 20 dB to about 91 dB.

25. The method according to claim 15, wherein the RF signal originates from a satellite and a broadcast center.

26. The method according to claim 15, further comprising the step of:

using a DiSEqC process for the commands.

5 27. The method according to claim 18, further comprising the step of:

selectively activating the gain in order to execute the step of maintaining.

28. The method according to claim 21, further comprising the step of:

selectively activating the gain in order to execute the step of maintaining.

29. The method according to claim 24, further comprising the step of:

10 selectively activating the gain in order to execute the step of maintaining.

30. A system for terrestrial transmission of RF signals comprising:

an antenna, where said antenna includes an active device and a passive device, where the active device includes at least one amplifier and the passive device receives RF signals, where the active device down converts the RF signals to IF signals and applies a gain to at least one of the RF signals and the IF signals; and

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a decoder connected to the antenna, where decoder receives and analyzes the IF signals from said antenna and upon receipt of the IF signals sends commands to the active device in order to maintain an acceptable IF signal, where said commands instruct the active device to selectively adjust the gain.

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31. The system according to claim 30, wherein the gain applied may be about 20 dB to about 91dB.

32. The system according to claim 30, wherein the at least one amplifier selectively applies a gain to both the RF signals and IF signals based upon the commands.

33. The system according to claim 30, where the at least one amplifier includes a low noise amplifier and a low noise block converter.

5 34. The system according to claim 30, where the commands are using a DiSEqC process.

35. The system according to claim 30, where the commands and IF signals are transmitted upon a single wire connecting the decoder and antenna.

36. A system for terrestrial transmission of RF signals comprising:

10 a plurality of antennas, where each antenna includes an active device and a passive device, where the passive device receives RF signals, and the active device down converts the RF signals to IF signals;

a plurality of master decoders, where each master decoder receives and analyzes the IF signals from each antenna and upon receipt of the IF signals sends commands to each respective active device in order to maintain an acceptable IF signal; and

15 a distribution switch, where said distribution switch receives each IF signal transmitted through each master decoder and transmits each IF signal to a plurality of end user decoders, where each end user decoder receives and analyzes the IF signals from said distribution switch and upon receipt of the IF signals sends commands to the

20 distribution switch in order to maintain an acceptable IF signal.

37. The system according to claim 36, where each active device of each antenna includes at least one amplifier and selectively applies a gain to at least one of the RF signals and IF signals based upon commands from each respective master decoder.

5 38. The system according to claim 36, where each active device of each antenna includes at least one amplifier and selectively applies a gain to both the RF signals and IF signals based upon commands from each respective master decoder.

39. The system according to claim 36, where said distribution switch includes a plurality of amplifiers that connect to the plurality of end user decoders, each
10 respective amplifier selectively applying a gain to each respective IF signal based upon the commands of each respective end user decoder.

40. The system according to claim 36, where said distribution switch transmits IF signal to at least one further distribution switch, wherein at least one further decoder connects the distribution switch to the at least one further distribution
15 switch.